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Firm No. 0018.0091

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for encoding and decoding input data, comprising:
  - (a) generating a key comprising a list of a plurality of binary values, wherein the key is made available to a user to enable decoding;
  - (b) encoding the input data by:
    - (i) using the key to initialize a replacement list;
    - (ii) determining whether to replace strings in the input data with a string reference to a matching string value, wherein the input data not replaced with reference to one matching string values value comprises one or more literals;
    - (iii) replacing each literal with a literal reference to one entry in the replacement list matching the literal; and
  - (c) decoding the encoded input data by:
    - (i) accessing the generated key in response to user input; and
    - (ii) using the accessed key to decode the literals replaced with literal references to entries in the replacement list.
2. (Original) The method of claim 1, wherein the literal comprises a byte of the input data.
3. (Original) The method of claim 1, wherein the user input comprises the generated key transferred by the user to the decoder.

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4. (Original) The method of claim 1, wherein the user input comprises a password, further comprising:  
using the password to generate the key used to initialize the replacement list during encoding.
5. (Original) The method of claim 1, wherein each string reference comprises a copy pointer to a previous instance of the string in a history buffer generated while scanning the input data.
6. (Original) The method of claim 1, wherein each string reference addresses one entry in a compression dictionary comprising strings repeated in the input data.
7. (Original) The method of claim 1, wherein during encoding all the input data is replaced with one string reference or literal reference.
8. (Original) The method of claim 1, wherein the replacement list includes 256 entries having every possible permutation of a byte.
9. (Original) The method of claim 1, wherein generating the key further comprises:  
randomizing an order of the entries in the replacement list.
10. (Original) The method of claim 1, wherein the replacement list comprises a most recently used (MRU) list, and wherein after replacing one literal with one literal reference to one entry in the replacement list during encoding further performing:  
promoting the entry matching the replaced literal to a first entry in the replacement list.

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11. (Currently Amended) The method of claim 1, wherein after replacing one literal with the literal reference to one entry in the replacement list during encoding, further performing:  
generating a pseudo random number; and  
using the pseudo random number to determine whether to promote the entry matching the replaced literal to a first entry in the replacement list.
12. (Original) The method of claim 1, wherein a first binary value is prepended to each string reference in the encoded data and a second binary value is prepended to the literal references in the encoded data.
13. (Original) The method of claim 12, wherein encoding the input data further comprises:  
generating a pseudo random number; and  
using the generated pseudo random number to encrypt at least one prepended first or second binary value.
14. (Original) The method of claim 1, wherein a first binary value is prepended to each string reference in the encoded data and wherein one of a plurality of different binary values is prepended to each literal reference in the encoded data, wherein each of the plurality of binary values prepended to literal references corresponds to a section of the replacement list and wherein the literal reference references one entry in the section corresponding to the prepended binary value.
15. (Currently Amended) The method of claim 1, further comprising:  
adding a number of bits from the encoded input data having a plurality of the references to either the matching string value in the input data or the replacement list to one bit package; and  
for each bit package including, performing:  
(i) generating a pseudo random number; and

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(ii) using the generated pseudo random number to encrypt the bit package including the encoded input data.

16. (Original) The method of claim 1, wherein encoding the input data further comprises:

using at least one random number generator to generate random numbers to encrypt the encoded input data; and

using the at least one random number generator to generate random numbers to decrypt the encoded data.

17. (Currently Amended) A system for encoding and decoding input data, comprising:  
(a) means for generating a key comprising a list of a plurality of binary values, wherein the key is made available to a user to enable decoding;

(b) means for encoding the input data by:

(i) using the key to initialize a replacement list;

(ii) determining whether to replace strings in the input data with a string reference to a matching string value, wherein the input data not replaced with reference to one matching string ~~values~~ value comprises one or more literals;

(iii) replacing each literal with a literal reference to one entry in the replacement list matching the literal; and

(c) means for decoding the encoded input data by:

(i) accessing the generated key in response to user input; and

(ii) using the accessed key to decode the literals replaced with literal references to entries in the replacement list.

18. (Original) The system of claim 17, wherein the means for encoding the input data further performs after replacing one literal with the literal reference to one entry in the replacement list during encoding:

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generating a pseudo random number; and  
using the pseudo random number to determine whether to promote the entry matching the replaced literal to a first entry in the replacement list.

19. (Original) The system of claim 17, wherein the means for encoding the input data further performs prepending a first binary value to each string reference in the encoded data and prepending a second binary value to the literal references in the encoded data.

20. (Original) The system of claim 17, wherein encoding the input data further performs:  
using at least one random number generator to generate random numbers to encrypt the encoded input data; and  
using the at least one random number generator to generate random numbers to decrypt the encoded data.

21. (Currently Amended) An article of manufacture including code for encoding and decoding input data, wherein the code causes operations to be performed comprising:

- (a) generating a key comprising a list of a plurality of binary values, wherein the key is made available to a user to enable decoding;
- (b) encoding the input data by:
  - (i) using the key to initialize a replacement list;
  - (ii) determining whether to replace strings in the input data with a string reference to a matching string value, wherein the input data not replaced with reference to one matching string ~~values~~ value comprises one or more literals;
  - (iii) replacing each literal with a literal reference to one entry in the replacement list matching the literal; and
- (c) decoding the encoded input data by:
  - (i) accessing the generated key in response to user input; and

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(ii) using the accessed key to decode the literals replaced with literal references to entries in the replacement list.

22. (Original) The article of manufacture of claim 21, wherein the literal comprises a byte of the input data.

23. (Original) The article of manufacture of claim 21, wherein the user input comprises the generated key transferred by the user to the decoder.

24. (Original) The article of manufacture of claim 21, wherein the user input comprises a password, further comprising:

using the password to generate the key used to initialize the replacement list during encoding.

25. (Original) The article of manufacture of claim 21, wherein each string reference comprises a copy pointer to a previous instance of the string in a history buffer generated while scanning the input data.

26. (Original) The article of manufacture of claim 21, wherein each string reference addresses one entry in a compression dictionary comprising strings repeated in the input data.

27. (Original) The article of manufacture of claim 21, wherein during encoding all the input data is replaced with one string reference or literal reference.

28. (Original) The article of manufacture of claim 21, wherein the replacement list includes 256 entries having every possible permutation of a byte.

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29. (Original) The article of manufacture of claim 21, wherein generating the key further comprises:

randomizing an order of the entries in the replacement list.

30. (Original) The article of manufacture of claim 21, wherein the replacement list comprises a most recently used (MRU) list, and wherein after replacing one literal with one literal reference to one entry in the replacement list during encoding further performing:

promoting the entry matching the replaced literal to a first entry in the replacement list.

31. (Currently Amended) The article of manufacture of claim 21, wherein after replacing one literal with the literal reference to one entry in the replacement list during encoding, further performing:

generating a pseudo random number; and

using the pseudo random number to determine whether to promote the entry matching the replaced literal to a first entry in the replacement list.

32. (Original) The article of manufacture of claim 21, wherein a first binary value is prepended to each string reference in the encoded data and a second binary value is prepended to the literal references in the encoded data.

33. (Original) The article of manufacture of claim 32, wherein encoding the input data further comprises:

generating a pseudo random number; and

using the generated pseudo random number to encrypt at least one prepended first or second binary value.

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34. (Original) The article of manufacture of claim 21, wherein a first binary value is prepended to each string reference in the encoded data and wherein one of a plurality of different binary values is prepended to each literal reference in the encoded data, wherein each of the plurality of binary values prepended to literal references corresponds to a section of the replacement list and wherein the literal reference references one entry in the section corresponding to the prepended binary value.

35. (Currently Amended) The article of manufacture of claim 21, further comprising:  
adding a number of bits from the encoded input data having a plurality of the references to either the matching string value in the input data or the replacement list, to one bit package; and  
for each bit package including, performing:  
(i) generating a pseudo random number; and  
(ii) using the generated pseudo random number to encrypt the bit package including the encoded input data.

36. (Original) The article of manufacture of claim 21, wherein encoding the input data further comprises:  
using at least one random number generator to generate random numbers to encrypt the encoded input data; and  
using the at least one random number generator to generate random numbers to decrypt the encoded data.